

CLAIMS

What is claimed is:

1. A method for generating and visualizing a task-oriented step representation of at least one parts program in machine tools or production machines, comprising the steps of:
searching the parts program using a syntax analyzer for key terms;
generating the task-oriented step representation of the at least one parts program based on the key terms found in the search; and
visualizing the task-oriented step representation to a user.
2. The method of claim 1, wherein the key terms comprise unchangeably defined instructions selected from synchronization instructions and user cycle instructions and syntax segments of the synchronization and user cycle instructions, and a combination thereof.
3. The method of claim 1, wherein the key terms and an association between the key terms and the task-oriented steps are stored in a configuration file that can be changed by the user and read by the syntax analyzer.
4. The method of claim 3, wherein a corresponding identification of the task-oriented steps is stored in the configuration file.

5. The method of claim 1, wherein the task-oriented step representation is visualized by an editor.
6. The method of claim 5, wherein the editor simultaneously visualizes at least two parts programs as a step representation of the task-oriented steps or in ASCII source code, or both.
7. The method of claim 5, wherein the task-oriented step representation is visualized as a normalized or a synchronized step representation, or both.
8. The method of claim 1, wherein individually performed tasks in the task-oriented step representation are graphically displayed by step-specific symbols associated with a step.
9. The method of claim 1, wherein the parts program further comprises configuration instructions for combining several steps to a higher-level step or to a hierarchical plane.
10. The method of claim 3, wherein the configuration file further comprises an association parameter for combining several steps to a higher-level step or to a hierarchical plane.

11. The method of claim 1, wherein the parts program further includes configuration instructions for storing step identifiers, symbols or hierarchical planes directly in the parts program.
12. The method of claim 3, wherein the parts program further includes configuration instructions for storing step identifiers, symbols or hierarchical planes directly in the parts program independently of the configuration file.
13. The method of claim 5, wherein the parts program further includes a definition file for causing the editor to highlight defined instructions or key terms, or both.